

REMARKS

Claims 1 to 25 are pending. Claims 1 to 15 have been withdrawn from consideration. Claim 16 is hereby amended.

§ 102 Rejection

Claims 16 and 23 were rejected under 35 U.S.C. 102(b) as being anticipated by Sakizadeh (U.S. Patent No. 6,762,013).

The Office Action essentially states that:

The photosensitive fluorochemicals are useful as a photomask (col.34, 60-col.35, 64). An example of the fluorochemical includes ZONYL TLF 951 5 and 951 7, anionic fluorinated phosphate salts (col.39,8-11).

Applicants respectfully submit that according to MPEP 2131 “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” (citing *Verdegall Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

Applicants have amended claim 16 to state that the fluorinated phosph(on)ate has a perfluorinated polyfluoropolyether group. Support for this amendment appears in the specification at p. 8, lines 27-30.

Sakizadeh does not disclose a fluorinated phosph(on)ate having a polyfluoropolyether group, as is required by claims 16 and 23. Accordingly, the reference does not describe every element of the claimed invention.

For these reasons, Applicant(s) submit that the cited reference will not support a 102(b) rejection of the claims invention and request that the rejection be withdrawn.

§ 103 Rejection

Claims 16, 17, 20 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-080594.

The Office Action essentially states:

The resin composition is capable of providing a coating film excellent in antistatic ability, hardness, adhesion, UV transmissivity and water resistance, useful as a photomask. The coating composition is obtained by compounding (A) a polymerizable acid phosphoric

ester represented by formula I, where R2 may be a halogenated methyl with (B) a silane compound represented by formula II and (C) an organic compound having greater than 2 polymerizable unsaturated double bonds in one molecule. A photomask having opaque and transparent portion is formed by coating a chromium thin film layer on a glass substrate. A protective coating of the resin composition is formed over the photomask. Abstract, [0010]-[0012], [0023], [0028]. The reference teaches using a halogenated phosphoric acid ester but is silent on the specific halogen. However it would have been obvious to one of ordinary skill in the art to use a fluorinated phosphoric acid ester because fluorine is one of the known halogens.

Applicants respectfully submit that according to MPEP 2142, to establish a case of *prima facie* obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references or generally known to one skilled in the art, to modify or combine reference teachings, 2) there must be reasonable expectation of success, and 3) the prior art references must teach or suggest all the claim limitations. The ability to modify the method of the references is not sufficient. The reference(s) must provide a motivation or reason for making the changes. *Ex parte Chicago Rawhide Manufacturing Co.*, 226 USPQ 438 (PTO Bd. App. 1984).

Applicants respectfully submit that the reference cannot support a case of *prima facie* obviousness as to the claims because, among other possible reasons, the cited reference does not provide a motivation or suggestion for a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group because the reference only discloses phosphoric esters with multiple unsubstituted methyl groups. In addition, the reference does not disclose all the elements of the present invention because it does not disclose a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group.

For these reasons, Applicant(s) submit that the cited references will not support a 103(a) rejection of the claims invention and request that the rejection be withdrawn.

§ 103 Rejection

Claims 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boardman (U.S. 6,824,882) in view of Mancini (U.S. 6,300,042).]

The Office Action essentially states:

Fluorinated phosphonic acid compounds are disclosed in Boardman. See col.3, 34-col.4, 17 for formula. These compounds are useful as treatments for substrate surfaces. These compounds form a monolayer on the substrate surface which imparts a lower surface energy to the substrate surface. One or more useful properties such as water repellency,

corrosion resistance, lubricity and adhesion release may be imparted to that surface as a result (col.1, 10-23). Fluorinated phosphonic acids of the invention may be applied to a variety of substrates. The layer of phosphonic acid is desirably in the range of 1-5 nm (col.4, 55-65). Boardman teaches treating a substrate by forming a layer of fluorinated phosphonic acid. This fluorinated phosphonic acid imparts a low surface energy to the surface of the substrate. While Boardman teaches that the fluorinated phosphonic acid may be applied to a variety of substrates the reference does not explicitly disclose forming this layer on an article comprising a phototool. Mancini teaches that a known problem in contact printing is the adhesion of particles such as dust and resist on the photomask surface when it comes into contact with the resist. A way to solve this problem and to make a photomask resistant to adhesion by such particles is by applying a layer of a low surface energy fluoropolymer to the surface of a photomask comprising a glass base with chrome opaque portions (col.1, 38-63; col.2, 36-57). Therefore it would have been obvious to one of ordinary skill in the art that the fluorinated phosphonic acid in the method of Boardman could be useful as a treatment layer on a photomask because Boardman teaches that the fluorinated phosphonic acid lowers the surface energy of the substrate surface and imparts adhesion release while Mancini teaches that materials possessing such properties are useful when applied to a photomask by solving the known problem of particle adhesion.

Applicants respectfully submit that according to MPEP 2142, to establish a case of *prima facie* obviousness, three basic criteria must be met: 1) there must be some suggestion or motivation, either in the references or generally known to one skilled in the art, to modify or combine reference teachings, 2) there must be reasonable expectation of success, and 3) the prior art references must teach or suggest all the claim limitations. The ability to modify the method of the references is not sufficient. The reference(s) must provide a motivation or reason for making the changes. *Ex parte Chicago Rawhide Manufacturing Co.*, 226 USPQ 438 (PTO Bd. App. 1984).

Applicants respectfully submit that the references cannot support a case of *prima facie* obviousness as to the claims because, among other possible reasons, the cited references do not provide a motivation or suggestion for using a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group because neither reference indicates that its disclosed materials may be successfully substituted with a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group. In addition the references also do not disclose all the elements of the present invention because neither discloses a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group.

For these reasons, Applicant(s) submit that the cited references will not support a 103(a) rejection of the claims invention and request that the rejection be withdrawn.

Nonstatutory Double Patenting Rejection

Claims 16, 17, 19-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14-21 of U.S. Patent No. 6,824,882 in view of Mancini (US 6,300,042).

The Office Action essentially states:

The claims of 6,824,882 recite an article comprising a substrate including a monolayer of a fluorinated phosphonic acid. While the claims do not recite that the article includes a phototool, Mancini teaches that fluoropolymer layers are known to be reduce the particle adhesion problem when coated on photomasks (as discussed previously). It would have been obvious to one of ordinary skill in the art that the article on which the fluorinated phosphonic acid layer claimed in 6,824,882 was formed could be a photomask, as Mancini teaches that articles such as photomasks are often treated with a fluoropolymer layer in order to prevent adhesion of particles during contact printing.

Applicants traverse the double patenting rejection because among other possible reasons, the cited references do not disclose a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group. For these reasons, Applicant(s) submit that the double-patenting rejection has been overcome and request that the rejection be withdrawn.

Nonstatutory Double Patenting Rejection

Claims 16-18, 20-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13-14 of copending Application No. 10/886,123 in view of Mancini (US 6,300,042).

The Office Action essentially states:

The claims of 10/886,123 recite an article comprising a substrate including a compound of a fluorinated phosphonic acid, Formula 1. While the claims do not recite that the article includes a phototool, Mancini teaches that fluoropolymer layers are known to be reduce the particle adhesion problem when coated on photomasks. It would have been obvious to one of ordinary skill in the art that the article on which the fluorinated phosphonic acid layer claimed in 10/886,123 was formed could be a photomask, as Mancini teaches that articles such as photomasks are often treated with a fluoropolymer layer in order to prevent adhesion of particles during contact printing.

Applicants traverse the double patenting rejection because among other possible reasons, the cited references do not provide a motivation or suggestion for using a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group on a phototool because the fluorinated materials disclosed in Mancini are an amorphous tetrafluoroethylene containing resin, a copolymer of tetrafluoroethylene and bis(trifluoromethyl) difluoro dioxide, and an amorphous fluoropolymer, hydrocarbon or a silicone based material. (See Mancini at col. 2, lines 42-52)

Nothing in Mancini indicates that its disclosed materials may be successfully substituted with a fluorinated phosph(on)ate having a perfluorinated polyfluoropolyether group. At most, such a substitution would be obvious to try. However, "obvious to try" is not the appropriate standard for an obviousness rejection. *See, e.g., In re Eli Lilly*, 902 F2d. 943, 14 USPQ 2d 1741, 1743 (Fed. Cir. 1990). For these reasons, Applicant(s) submit that the double-patenting rejection has been overcome and request that the rejection be withdrawn.

In addition to the foregoing arguments, Applicant(s) submit that a dependent claim should be considered allowable when its parent claim is allowed. *In re McCarn*, 101 USPQ 411 (CCPA 1954). Accordingly, provided the independent claims are allowed, all claims depending therefrom should also be allowed.

Based on the foregoing, it is submitted that the application is in condition for allowance. Withdrawal of the rejections under 35 U.S.C. 102(b) and 103(a) and double patenting is requested. Examination and reconsideration of the claims are requested. Allowance of the claims at an early date is solicited.

The Examiner is invited to contact Applicant(s)' attorney if the Examiner believes any remaining questions or issues could be resolved.

Respectfully submitted,

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Date

By: Melanie Gover
Melanie G. Gover, Reg. No.: 41,793
Telephone No.: 512-984-4308

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833